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1761

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Applicant(s): Edward Z. Cai

Appn. Title: Cartridge and method for making fluid comestibles

Examiner: Steven L Weinstein / Art Unit 1761

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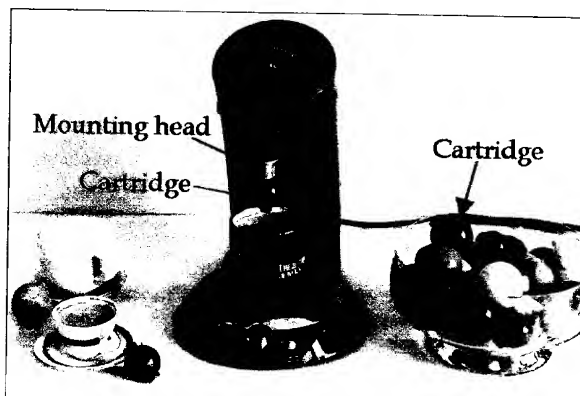
## Supplemental Information

Assistant Commissioner for Patents  
Washington, District of Columbia 20231  
Attn.: Steven L Weinstein

Note: The original will be express-mailed  
today.

Dear Sir:

The applicant has prepared the following photo to show the unexpected, naturally formed crema or foam layer on the espresso (small white cup), coffee (red cup) and cappuccino (large white cup) made from the cartridges according to the present invention.



To make espresso, cappuccino or coffee with a cartridge of the present invention, one simply inserts and rotates the cartridge to lock it to the mounting head, and then turn on the water pump.

(Note: The unique cartridge inlet causes the cartridge to self-align with the mounting head, thereby ensuring flawless seal between the cartridge and mounting head every time.)

Such natural crema layer is an indication of a perfect cup of espresso, which currently could only be achieved by having coffee grounds in a sturdy steel filter holder of a high-end espresso machine. The numerous cartridges taught by prior art such as US Pat. 3,347,151 by Ronalds, 3,292,527 by Stasse, 5,240,772 by Louridas, 4,886,674 by Seward, and 5,325,765 and 5,840,189 both by Sylvan do not, and are not expected to, produce espresso with a crema or foam layer. Fond et al. in US. Pat. 5,897,899; 5,656,316 and 5,242,702 taught a cartridge that produces espresso with a crema layer. But Fond et al's cartridge requires the use of the heavy steel holder.

It is believed that the unexpected crema layer is produced because the inlet, chamber and outlet of the cartridge of the present invention are formed as one single, integral body (please refer to above photo and Figs. 1 to 3 of the invention). The prior art cartridges above have an inlet (or cover), chamber and outlet that are separately produced and later sealed together by heat or adhesive. Besides causing the unexpected crema, the unique integration of the inlet, chamber and outlet of the present invention also greatly increases the safety to consumers during brewing with hot pressurized water because the cartridge is a single body with no seal to break. Furthermore, by forming the inlet, chamber and outlet as one single part, the cost of the cartridge of the present invention is significantly lower than the prior art cartridges, thereby making the easy-to-use cartridges affordable to all consumers.

Sincerely yours,

  
Edward Z. Cai (applicant)